ADDRESS

OF THE

HON. STEPHEN A. DOUGLAS,

AT THE

ANNUAL FAIR

OF THE

New-York State Agricultural Society,

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ADDRESS.

Mr. President, and Gentlemen of the New-York State Agricultural Society:

I have not the presumption to suppose that I can enlighten this immense assemblage of scientific and practical farmers, by any thing I can say on the subject of agriculture. The theme is so vast, and embraces so many co-ordinate branches of science and industry, that a mere enumeration of these would far exceed the limits of a popular address.

America offers to the farmer the grandest field for the exercise of intellectual and moral energy. It embraces a greater extent of territory, a more fertile soil, a more diversified climate, and above all, has a far more intelligent, energetic and independent yeomanry, than any with whose agricultural productions it is now competing for the markets of the world. Agriculture has found here the conditions of its fullest development, and its most ample success—the greatest stimulus to exertion, and the highest reward.

Our lands are cheap, and not exhausted by the cultivation of twenty centuries. Our farmers are the owners of the soil in fee-simple, while the abolition of the laws of primogeniture prevents the accumulation of real property in the hands of a few land owners. Our country is the first that has set the world the example of independent farming—the first that has restored agricultural labor to that natural dignity, of which the feudal systems of the old world had deprived it. Every tree planted by the American farmer, every shrub, every flower he cultivates, every hedge he grows, is his own, and descends as an inheritance to his children.

Agriculture in this country is a highly respectable, and, at the same time, a most attractive pursuit. It is not only resorted to as a means of acquiring an honest independence, but as a dignified and pleasurable occupation by men of science and letters, by statesmen and warriors, merchants and navigators, in short by all who have gathered wealth, honor and distinction in other pursuits of life.

So long as agriculture was the exclusive occupation of an enslaved peasantry, it produced little more than the necessaries of life. It remained a mere sluggish labor; consuming men's physical strength, and descending, with little improvement, from father to son, among those who were born and bred to it. Happily for the progress of

mankind, the condition of the agricultural laborer has changed in many parts of the world, and it is no small source of pride and gratification for us to know that it is the example of America which has wrought the change and restored agriculture to its original rank among the most honorable occupations of men. It is now a profession, calling to its aid science and the mechanic arts, and in its every branch, the inventive genius of man. The farmer, instead of merely following the beaten track of his ancestor, now brings to his pursuit his own powers of inquiry and investigation. Chemistry teaches him the nature and quality of the ingredients composing his soil, the species of crop most suitable to its productive power, and the kinds of manure he must use, and the proportion of cattle he must keep to make his farm productive. As he acquires a knowledge of chemistry, of agricultural geology, and of the physiology of plants and animals, his crops become more certain, and his reward more sure. Armed with knowledge, the fertility of man's mind has discovered remedies for the sterility of soils, and found means of guarding the fruits of his labor even against the vicissitudes of climate. This is not all. The American farmer possesses the means of multiplying labor, and thereby its reward, by the most ingenious and effective machinery.

Great as the ratio of our farming population

may be, compared to that engaged in other pursuits, it bears, as yet, no proportion to the quantity of uncultivated lands. We have more soil, than people to render it productive; while the very opposite ratio exists in the old world. As manual labor is expensive and procured with difficulty, machines are naturally called in to take its place without detriment to the laborer. The machine does not deprive him of employment,—it merely performs that labor for which he has no time to spare, and without which his cultivation would be confined to narrower limits. No country can award a higher premium to the inventive genius of machinists than our own: none can boast of a greater number of inventions applicable to the agricultural and mechanic arts. Our agricultural machines, especially, have excited the admiration of the world; and along with our substantial achievements in that department of industry, it is perhaps not unpleasant to have extorted the testimony of England, on a late occasion, to the ingenuity displayed by American inventors.

The growth of our country is marked by the advancement of agriculture. Agriculture is settling our new states and territories; agriculture gives employment to our workshops; agriculture furnishes the products which form the basis of our foreign and domestic commerce; agriculture, by supplying the bulky articles of our exports,

employs the tonnage of our ship-builders, and in seeking markets for its increased products, calls for the construction of railroads and canals. The farms of Western New-York demanded the construction of the Erie Canal, and the farms of the Western States now call for its enlargement. As the Western States and Territories become settled, and agricultural products accumulate, new railroads and canals become necessary to furnish means of transportation to the seaboard. The West is desirous of securing every avenue to the sea. It requires the navigation of the Mississippi and of the St. Lawrence, the canals of New-York, Pennsylvania, Ohio, Indiana and Illinois, and all the railroads now constructed or in process of construction from the sea coast to the Mississippi valley. And all these facilities will yet prove insufficient to form adequate outlets for the constantly accumulating products of the Western farmers. New lines of communication will be called into existence, and it is extremely doubtful whether the capital and enterprise of the country will be able to keep pace with the increased demands for internal improvements.

Thus agriculture stimulates every species of industry, and is the parent and supporter of them all. What, I would ask, would be the present condition of our foreign commerce, had it not been stimulated by the increased productions of agriculture? What, the condition of our mer-

cantile navy, in steamers and sailing ships already outstripping that of the first maritime nation of the globe? It is the bulky products of agriculture that make up freights, and furnish the principal portion of our foreign exchanges.

And it is fortunate for us, and for the preserva- of our liberal institutions, that Agriculture enters so largely into the Political Economy of our country.

As now pursued, it developes the mind and body, and preserves both the health and morals of our people. While so large a portion of our voters are engaged in agricultural pursuits, we need apprehend no danger to our republican institutions—no pernicious influence of foreign nations on the steady development of our wealth and power. Producing all the necessaries of life far beyond our own wants, and importing for the most part, only the luxuries, we are, whenever we choose, independent of the rest of the world; while other nations, not producing the necessaries of life in sufficient quantities to feed their own population, and depending on the sale of their luxuries for the supply of this deficiency, will have a care not wantonly to interrupt our peaceful relations with them. England, once ready "to spend her last guinea, and to sacrifice her last man," to break down the continental system of Europe, will not easily be tempted to build up a similar system in America; and it is hardly to

be supposed that other nations will press forward to do that from which Great Britain wisely abstains. As long as the great body of our population is composed of owners and cultivators of the soil, we shall remain true to our republican instincts. We may not succeed in the production of every luxury for the enjoyment and gratification of man; but we will produce, at the cheapest rate, and in the greatest abundance, those things which contribute most to the comfort, happiness and peace, not only of our own people, but of the laboring classes of all other countries.

We are now able to furnish the whole world with the cheapest and best food, and with the cheapest and best raiment. We furnish grain, provisions and cotton—the three staple articles of commerce—in greater quantities and of better qualities, than any other nation; and the time is not far distant when we will be able also to regulate their prices. What a boundless field, then, is opened to our agricultural industry! What ample reward to the labor of our farmers! The command of the world-staples, even without the acquisition of California, (which secures to us the control of the precious metals,) must have given us the control of the commerce of the world. But independent of these international considerations, there is yet another which will naturally suggest itself to your minds. Our agri-

cultural products, owing to the vast extent of our territory, and the great differences of soil and climate, are so varied as to furnish abundant exchanges for the domestic trade between the different States of the Union. They furnish in themselves, the materials of a very extensive internal commerce, employ, to a large extent, our coasting tonnage, and secure constant employment to our Steamboats and Railroads.

Planting and farming are the mutual allies of each other, as are, indeed, all branches of agricultural industry, notwithstanding any prejudice which may be entertained in different sections of the country. They take a narrow view of political economy, who can see but rival interests growing out of the different productions of the same country; and they are worse than bigoted who, in consequence of it, indulge in unworthy jealousies or hostile sentiments towards brethren of the same family. You cannot, by legitimate means, benefit any one branch of industry of a great country, without indirectly benefitting all the rest; but when, as in the case before us, one interest is dependent on the other—when the producer of the one article is the best and often the only consumer of the other, who is so rash as to assert that the prosperity of the one works the injury of the other? But it is not my purpose on the present occasion, further to pursue this train of thought. My object is not to make proselytes

for a particular theory: but simply to show the necessary connection and intimate relationship of all the branches of the same species of industry, and their harmonious co-operation in promoting the wealth, happiness and power of a great people. The free international exchange of commodities, so eagerly sought for, as the great commercial desideratum of the different nations of Europe, exists already, by the simple operation of our federal constitution, between the different States of this Union; and the products of the different States of Europe are less varied than those of the different geographical divisions of our common country. The domestic exchanges of every country naturally constitute the great bulk of its entire commerce; but in none—perhaps not even in China—is so large a portion of them furnished exclusively by the products of the soil, as in our own.

I have, thus far, briefly referred to Agriculture, in connection with other branches of industry; but I propose to go a step further and consider by themselves some of the principal agricultural products which enter largely into the political economy of this country. I do this for the purpose of showing, not only how each particular branch of agriculture may in turn aid in building up the commercial and maritime importance of a nation; but also, how one species of agricultural industry may come to the assistance of another, with

which it seems to have no necessary connection. And it may be shown, from examples furnished by our history, that even products seemingly competing with each other in the same markets, have yet a tendency to create increased demands for all of them. With the theories and speculations of political economists, I have no disposition to meddle before this audience. I shall content myself with presenting facts, leaving you to make the application.

The leading American agricultural staple of export is Cotton; and its cultivation and manufacture have within the last half century acquired an importance far exceeding all other similar pursuits. The plant, though indigenous to the tropical regions of Asia, Africa and America, had only been used to a limited extent, for the purposes of clothing, when the American invention of the cotton-gin gave its cultivation an impetus and extension unprecedented in the annals of agriculture. No branch of human industry has ever risen to importance and power so rapidly as that of cotton; none has produced so great a revolution in the commerce and manufactures of the civilized world. Previous to the Revolution, and even as late as the adoption of the federal constitution, not a single pound of cotton was exported from America. Now it exceeds in value all other agricultural exports of our country; is the great basis of our foreign exchanges, and the

most powerful lever of the commerce of the world.

The cotton trade alone has sufficed to revolutionize the commerce of the world. Wherever a bale of cotton goes, it carries with it a portion of American intelligence and power. The abolition of the corn laws of England—opening the ports of Great Britain to American bread-stuffs and provisions—was a triumph achieved by the American cotton grower over the feudal aristocracy of the old world. It furnished bread to the laboring masses of Great Britain and Ireland, at the same time that it clothed them, and formed the first step towards the amelioration of their condition. It afforded increased markets, not only to the products of the South, but, from the necessary relation of all articles of commerce, also to those of the Northern and North-western States of the Union. What has been effected in England by the power of American Agriculture, must, in due course of time, extend to every commercial and manufacturing country on the continent of Europe. The battle against commercial restrictions is now waging in France, Belgium, Germany and Italy, and must eventually terminate in the abrogation of all government monopolies.

In enumerating the leading agricultural staples of our country, we are naturally led to the consideration of the Tobacco plant. It is not my purpose here to inquire how far the use of Tobac-

co, in any of its forms, may be regarded as an elegant accomplishment, or whether its culture should be encouraged, as one of the necessaries of life. In Holland, on the shores of the Baltic, and other countries of Europe, I believe, it has been regarded as a medicinal plant, and an antidote against prevailing diseases: while in some of the German States, its growth, owing to the general use of the weed, is enforced by law. Be this as it may, the use of tobacco, in some shape, has become general in every quarter of the globe, and its production an object of national importance.

Tobacco enters largely into our foreign exchanges, being second only to cotton on the list of our agricultural exports. There is no nation with which we trade that does not use tobacco; while in several European countries it is a government monopoly, and one of the chief articles from which revenue is derived. In several States of this Union, it constitutes the chief staple article of agriculture, and its producers are large consumers of the ordinary products of the farm and dairy of other States; while in some of the Northern and North-western States, its culture has been introduced, as even more profitable than the usual agricultural industry of our farmers.

But we not only export tobacco, we are also importers of the article to a large amount for our own consumption. It becomes an appropriate

subject of inquiry, therefore, whether our soil and climate are not adapted to the production of those superior qualities which we now import, as well as to those in the production of which we excel other portions of the world; and the question may also arise whether our qualities of tobacco may not be improved so as to equal those now imported from the principal West India Islands? At all events, the action of government is invoked not to slacken in its endeavors to induce the governments of France, Belgium and Austria, to abandon their present tobacco monopolies, and to open their ports to the reception of this, as well as other agricultural staples of our country. I am aware that these endeavors up to this moment, have met with but little success; but this constitutes no valid reason why they should be abandoned. The age of monopolies is passed, and the check which every monopoly imposes on other branches of commerce, and through it, indirectly, on the revenue, added to our own governmental remonstrances, can in the end hardly fail to open the eyes of those nations, and to effect the desired object.

I would now invite your attention to the exportation of Bread-Stuffs. At one time, in the history of our country, a general impression prevailed that we should never be able to export wheat and flour to Europe, The distance from European markets, the cost of transportation, interest

on capital, insurance, all were figured up against us to show that competition with the wheat growers of Europe, was entirely out of the question, and that we must confine our export of bread-stuffs to the British North American Colonies, the West Indies and South America. This error, however, has been corrected by experience. Without including our large exports during the famine year, when we were almost the only sellers in the markets of Europe, our exports show a respectable increase in ordinary years; our means of transportation have improved, production has become cheaper, distances have been shortened, by the saving of time, and in spite of all the lugubrious prophesies of our croakers, we find our farmers competing with the principal wheat growers of Europe in their own markets! American bread-stuffs have gained a permanent foothold in the principal markets of the world, and our wheat flour is quite as great a favorite in Mark Lane, as any other species of the same article imported into England. Occasional fluctuations in prices—in particular years of large crops—must of course, be submitted to in the trade of all agricultural staples; but these will be met, and their influences guarded against, by a frugal, sagacious and energetic people.

But while in the trade of wheat and flour we meet with powerful rivals in the North and South of Europe—among the people on the Baltic and

those bordering on the Black Sea—the trade in Indian corn and corn meal, and in provisions, is to a great extent, left almost without competition, save that which proceeds from the offer of inferior substitutes. We can furnish good provisions, at lower rates, than any other country on the globe; and Indian corn has no longer any other real competitor in British markets, than the now uncertain crop of Irish potato. With this view of the subject, you will pardon me if I at once proceed to the consideration of that important American staple.

Indian corn is, no doubt, an indigenous plant of North and South America; having been cultivated by the Indians many centuries before the discovery of this continent. Antiquarian researches and architectural ruins show, that Indian corn must have been grown and held in high esteem as the chief article of food by the Aztecs, and this supposition becomes the more probable, as the principal other grains now cultivated in America have been since introduced from Europe. It constitutes now a chief article of food for man and the animals subject to his dominion on this continent, and an important article of export to Europe, although many parts of Southern Europe have been found well adapted to its growth. It recommends itself to the great body of consumers by its nutritious qualities, far exceeding those of other substitutes for wheat and rye, now in use

among the laboring classes of Europe, and by the great variety of forms in which it may be prepared for food. French chemists assert that two cents' worth of Indian corn will go further in sustaining animal life, than ten cents' worth of wheat, rye or barley. There is no doubt that its consumption is increasing every where, and that its production in this country, on the largest scale, will abundantly reward the farmer. Indian corn will in due time, not only partially supplant the potato (which is now an uncertain crop in Europe,) but also compete successfully with the more valuable grains and bread-stuffs.

Among the agricultural products entering into the general consumption of all civilized nations, Sugar deservedly occupies a very high rank. It is a disputed question whether the sugar cane is indigenous to America. It has been known and cultivated from the earliest periods, in Asia, and especially in China, and is by some supposed to have been introduced into America by the Spaniards and Portuguese. Others maintain that the cane is a plant indigenous to the New World. I incline to the latter opinion, but leave the subject to those who have the time and the inclination to investigate it.

Sugar from cane is produced to a great extent in the United State; but a larger portion is yet imported from foreign countries. Whether the United States will ever be able to produce the

quantity required for their own consumption, remains to be seen, and will in all likelihood depend on the probable annexation of more sugar-growing states to the Union. Some portions of Louisiana, Texas and Florida produce cane sugar to the extent of rewarding the cultivators; while in many of the Northern States large amounts of sugar are manufactured from the maple tree. The whole quantity, however, does not meet the demand for home consumption, and the question has often been asked whether some other plant, easily raised and cultivated, may not, in part at least, supply the deficiency?

The cultivation of the beet-root, for the manufacture of sugar, was introduced into France, during the operation of the continental system. That prohibitory system, as long as it continued, constituted in itself the amplest protection against all foreign competition; but when, upon the fall of Napoleon, some of the French colonies which had been seized upon by Great Britain, during the war, were restored to France, and the continental system itself abandoned, protection, in the shape of high duties upon colonial sugar, was deemed necessary to sustain the cultivation of the beet-root. Under Louis Phillippe the growth of beet-root and the manufacture of beet-root sugar, received the utmost attention and fostering care of the Government. Both were encouraged by a series of legislative enactments, and, for a

while, a fierce struggle was maintained between the advocates of the French colonial system, and the friends of the domestic article. The large and predominant interest of the consumer, which required, as an act of justice to all, that both kinds of sugar should be able to compete fairly for the home market, was entirely left out of the question. Meanwhile the production of beet-root sugar increased more than tenfold in amount, and since the entire removal of the protection by the imposition of an excise duty upon it, equal to the import duty on the colonial article, that branch of industry has maintained itself in defiance of all competition.

I am not aware that the soil and climate of France are, in any respect, better adapted to the cultivation of the beet-root, than many portions of the United States. At all events, considering that Prussia, Belgium, Saxony, other parts of Germany, and even Russia, have imitated the example of France, with the same if not greater success, there is no reason to suppose that it is entirely inapplicable to the United States; situated for the most part in equally favorable latitudes, and subject to similar influences of climate. Is it not, therefore, a question worthy of your attention, whether the cultivation of the beet-root, as a sugar plant, may not be successfully introduced into our own country, as a means of supplying the deficiency of cane?

This subject derives additional interest from the consideration that sugar in this country, has become an article of ordinary, daily consumption by every portion of our population, and that the comfort and well being of our industrial classes require that its consumption should rather increase than diminish, in proportion to the increasing population of the United States.

Rice is a native of India; but was at an early period of our colonial history, transplanted to the shores of South Carolina and Georgia. I believe I hazard nothing in asserting that it is now growing more luxuriantly on our soil, than on the one that gave it birth, and that South Carolina rice, on account of its superior quality, commands the very highest price in foreign markets. It is the staple article of a section of country, which is comparatively valueless for any other species of agricultural production; being principally raised on swampy grounds, naturally subject to inundation. It is moreover confined to a few localities, and limited in quantity, though constituting a very valuable crop. Heretofore rice has only been raised in southern latitudes; but within a few years—since the territory of Minnesota has been thrown open to settlers—it has been ascertained that the innumerable small lakes and swamps, which dot the map of that section of country, upon the head waters of the Mississippi, contain a luxuriant and spontaneous growth of

wild rice, which is well adapted to culinary purposes. Is it not then, a subject worthy of investigation, whether this new species of rice, a native of the North, and accustomed to a northern climate, may not be produced in the swamps and marshes which now disfigure our best agricultural regions, and remain a source of disease and death to their inhabitants? I merely throw out these hints to direct your attention to the subject; not knowing whether others may not have preceded me. I leave it to your better knowledge, and to your practical qualifications as farmers, to make the necessary experiments; believing that in agriculture, as in other sciences and occupations, experience alone is the proper test of all discoveries and improvements.

I have, within the last year, procured a considerable quantity of the seeds of this rice from the Patent office at Washington, and distributed them among those whom I thought likely to make experiments in different parts of the country; but sufficient time has not elapsed to ascertain the result. Were it not for the British system of differential duties upon articles, the productions of different species of labor, South Carolina and Georgia rice would have continued to be exported in large quantities. But the system by which England has of late years, favored the agricultural products of her East India provinces, to the detriment and ruin of her West

India colonies, has also, for a time at least exercised a discouraging influence on the rice-growers of America. It is a subject of congratulation, therefore, to know that, more recently, rice has found a ready home market, at such remunerating prices, as promise to that branch of agriculture a long period of prosperity and success.

Hemp has long been, and still continues to be, a very considerable item in our foreign imports. The government itself has, from its foundation, been a large importer of hemp for naval purposes, in addition to what has been introduced, on private account, principally for the use of our commercial marine. The importations commenced when little or no hemp was produced in this country, and have been continued, under the impression that American hemp was not equal to that of Russia for the manufacture of cordage. It has long since been ascertained, however, that our soil and climate are well adapted to the growth of hemp, and that we can produce it cheap and in abundance. It is now believed that the hemp grown in Kentucky, Missouri, Ohio, Illinois, Indiana, Iowa, and perhaps other States of the Union, is fully equal to the Russian in strength and texture, and that our countrymen have discovered a process of rotting, by which it can be rendered equal, if not superior, to that of Russia, for all purposes to which the latter has been applied in this country. This fact renders

the culture of hemp well worth the attention of American agriculturists. A people now only the second, and destined soon to be the first commercial and maritime nation of the world, ought to bestow a special care on all products necessary to the success of its commercial and naval enterprise. The capacity of our soil for the production of hemp is unlimited; while our immense foreign, coastwise, and internal navigation, insure to it an ample and increasing home market.

I would fain say a few words on the culture of Mulberries, in connection with the raising of the silk-worm and the Manufacture of Silk. I am aware that the experiments heretofore made have usually proved unsuccessful; but the enterprise resembled more a mercantile speculation than a fair trial by practical men. I am loth to believe that within the wide range of our Northern and Southern latitude, there should not be a spot favorable to the cultivation of the silk-worm. Silk-worms, and the peculiar species of mulberry upon which they live, were first introduced into Asia Minor from China; and the experiment having succeeded there, and in Greece, in Turkey, in France, in Italy, in Spain, and in Portugal, is it not reasonable to suppose that they would also thrive in many portions of our own country, if the attention and care were bestowed upon them which are the conditions of their growth? Experiments have lately been made in

South Carolina in the cultivation of the Chinese tea-plant, and if the accounts I have seen are to be relied upon, have entirely succeeded. Why then should not silk, an article much less delicate than tea, and which has already succeeded in so many different climes, be susceptible also of profitable cultivation in the United States? A large portion of our imports from Europe, consists of manufactured silks, and if we could succeed in domesticating that species of industry, a degree of stability would be imparted to our foreign commercial policy, which would serve to prevent the confounding of political economy with partizan politics.

My remarks on the subject of Silk, apply, perhaps with equal force, to the cultivation of the Vine. The vine is a native of Asia, but has attained its highest perfection in Europe and Africa. While there is scarcely a species of Asiatic wine known to commerce, some of the highest priced wines in Europe are manufactured from vineyards in latitude 48° and 50°. Careful tending and manuring, and the treatment of the wine in the cask and in the cellar, seem to have done every thing. We have as many varieties of the grape as any part of the world, indigenous to our own country, and growing luxuriantly wild in wood and prairie. It is a singular fact, however, that the greater part of them remain still uncultivated, without the least value being attached to them

by our farmers, although almost every experiment which has been made with our indigenous grape, has succeeded. Good wines, far superior in quality to the ordinary hocks and clarets imported into this country, are now made from pure indigenous grape, in many portions of Pennsylvania, Ohio, Kentucky, Indiana, Illinois, Missouri, and doubtless in other States of the Union; while it is well known that wine has long been a staple article of production in the valley of the Rio Grande and the southern portion of California. The Catawba grape has shown itself admirably adapted to the manufacture of champagne, while the lighter sorts of it furnish an excellent article for the use of the table. I have been informed that natives of Europe, now adopted citizens of the United States, are willing to pay a higher price for them than for the usual qualities of French or German wines to which they are accustomed.

An excellent light wine is produced in North Carolina, from a native grape, called scuppernong, peculiar to that state. Similar experiments have been made in other States, and it would indeed seem as if the indigenous American grape were infinite in its varieties, and its culture better adapted to the soil and climate of this country than that of any other kind of grape imported either from Europe, Africa, or the Canary Islands. In view of these facts, it is certainly no wild con-

jecture to suppose that the United States will, in a very short time, produce good wine so cheap and in such abundance, as to render it a common and daily beverage. Such a result is not to be deprecated on the part of those most scrupulous on the subject of ardent spirits, for it is a well established fact, verified by the observation of every day, that the population of wine-growing countries is noted for sobriety and temperance. The most sober people of the old world, are in the wine growing countries of southern Europe, where the article, like water, is placed on every table, free of cost, but an extra charge made for coffee and a very exorbitant one for tea. They scarcely ever indulge in it to excess, while in Northern Russia, where ardent spirits are used as substitutes for wines, intoxication is the prevailing vice.

I am now about to say a few words on a very important branch of husbandry, of peculiar interest to the American farmer. I allude to the growth of Wool; an article which in no small degree affects our foreign and domestic exchanges. So far as experience has demonstrated, large portions of our country are admirably adapted to the growth of wool. In the production of no other article has there been so great an improvement in quantity and quality. Our early attempts at wool-growing were almost exclusively confined to the inferior breeds of sheep, and

the coarser qualities of wool, under the prevalent impression that the Saxon, Merino, South Downs, and all other finer qualities, could not be raised in this country. Recent experiments however, go far to show that the finer qualities of wool can be produced in this country, by similar care and attention to the breed and culture of the sheep, as well as in any part of Europe, and to an extent far beyond our present demand. The hills of New England, New-York and Pennsylvania, have been shown to be well adapted to the raising of sheep, and it can hardly be doubted that the mountains of Virginia, North Carolina and other Southern States, are equally favorable to the same culture. Wool and sheep-growing are also becoming an important branch of industry on the Western prairies, and it is highly probable that the regions best adapted to them, will yet be found between the Mississippi and the Pacific, in the valleys and upon the great plains, on both sides of the Rocky Mountains. Those regions are particularly adapted to grazing. They are for the most part elevated, dry and healthy, abounding in rich grasses and pure water. The extent of country to which I refer, embraces an area more than twice that of the original thirteen States of the Union, and is destined to be occupied by an intelligent, industrious and energetic race of men, not inferior in any respect to those who inhabit the old States. Nature has designed

it for the habitation of an agricultural people, and grazing must be their predominant pursuit.

In the early stages of the woolen manufactures of Europe, the finer qualities of wool were almost exclusively supplied by Spain, and the belief existed there, as it did here, that no other country could supply the same quality. The northern climate, it was thought, would impair the fineness of the staple. But the Merino sheep introduced into England soon dispelled that prejudice, and their introduction, at the beginning of the present century, into Saxony and Silesia, established the fact, that proper care and cultivation will do more in this branch of husbandry than mere climate or other favorable adventitious circumstances. The Saxon Merino, for the purpose of wool-growing, is now far superior to the Spanish, and its wool brings a much higher price in the principal markets of England, France and Belgium. Indeed the finer qualities of wool are now almost exclusively supplied by Germany, while Spanish Merino wool has almost entirely disappeared from the wool markets of Europe.

The history of wool-growing and sheep-culture in Europe is full of valuable lessons to the American farmer. It shows what knowledge, diligence and care can accomplish, against adverse climates and indifferent soils. The lesson is full of encouragement to us, and has already stimulated the emulation of our husbandmen. If I

can read the future of this country, wool, in a very few years, will become as much an article of exportation, as cotton, provisions and breadstuffs, and this notwithstanding the powerful rivalry which our wool-growers on the Pacific will find in the progress of wool-growing in Australia.

There is one more species of industry, lately come into use as an incident to agriculture, which I deem of sufficient importance to recommend to the attention of your society. It is the manufacture of oil and candles from the fat of the hog, known in the vocabulary of the West as the "prairie whale." The process of manufacturing these articles, is a Western discovery, and is leading to important results in the agriculture and commerce of our country.

The uses to which Lard Oil may be applied are almost infinite. It was first employed as a substitute for lamp oil and sperm candles; but was gradually made to take the place of almost every species of animal fat, or vegetable oil, employed in manufactures, and is now most extensively used in all kinds of machinery. It is also introduced to a very large extent, in many branches of domestic economy, and when refined and properly prepared is used even in the shape of a condiment of the table, or an indispensable article of the toilet. Lard oil is largely exported to France, and after undergoing various che-

mical operations, re-imported into the United States, and sold in various metamorphoses, as salad-oil, pomatum, or bear's grease.

I know not whether I am permitted to press these considerations for the purpose of stimulating competition; but I feel quite certain that even the ingenuity of European chemists, will, in due time, find its match in "Yankee ingenuity." Meanwhile I am glad to see the lard oil manufactories flourish, having no apprehension that they will ever seriously interfere with the whale fisheries of New-England, the great school of our sailors, and the great nursery of our navy. On the contrary, it appears that sperm oil, notwithstanding the competition of lard, is still commanding respectable and remunerating prices; its superior qualities and the valuable uses to which it may be applied, operating quite as much in its favor, as the diminished number of whales, which compels our hardy fishermen to seek for them in higher and more dangerous latitudes.

I would now say a few words on the growth of Timber, a subject much neglected by our countrymen. Yet timber is one of the most valuable productions of the soil, and an indispensable requisite to the improvement and civilization of man. No country on earth is, in this respect, more blessed than our's. None can boast of such a variety of forest trees, adapted to the various uses of farming, the mechanic arts, architecture

and ship-building. In no other country do we find such magnificent shade trees, such extensive and superb primeval forests, and in no part of the world is the reproductive power of the soil less exhausted than in our own. Yet with all these incalculable advantages, and with our unbounded coal-fields, the want of fire-wood is already felt in some districts which, like the prairies of the West, are naturally destitute of timber, or in which locomotives and steamboats are consuming the article faster than it can be reproduced in the ordinary course of nature. There is also reason to believe that the extreme desire of pressing civilization forward, and of fertilizing the wilderness in the shortest time, induces many a hardy pioneer of the West to enter somewhat enthusiastically on the "extermination" of our woods, when considerations not merely poetical, but economical and practical, would in more than one instance call out to him, "Woodman, spare that tree!"

Trees are not merely useful and ornamental, but also by their mere existence—by the breathing of oxygen—eminently conducive to health. They are the companions of man, as much so as some of the domestic animals, and have as such, acquired a certain right to his protection. Many localities which I could name, especially near the sea coast, have been completely shorn of timber: and experience has shown that a forest once

entirely cut down, will not grow up again and reproduce the same kinds of timber. Much inconvenience is now felt in consequence, and the evil is progressive, threatening the comfort and interests of farmers, mechanics, and all classes engaged in industrial pursuits.

In most countries of Europe, the preservation of forests, by only partially cutting down the timber, and selecting for that purpose only those trees, the removal of which facilitates the growth of the young trees, by which means the same species of timber can be reproduced almost *ad infinitum*, without any perceptible deterioration in quality, is reduced to a science, taught in Academies and Colleges. And though we may not, in this country, feel the necessity of husbanding our almost countless resources of the forest, yet more attention than has hitherto been paid the subject, is certainly due to it. It is to such societies as yours, I submit this suggestion. It is to your zeal, wisdom and experience that the country may confidently look for the prevention of these evils.

The limits of this discourse will not allow me to refer to the subject of breeding Domestic Animals, but I cannot omit to bring to your notice a most valuable quadruped—"the ship of the Desert"—for the introduction of which an appropriation was proposed in the last Congress. I have no doubt that the Camel from Arabia will soon be introduced, for the transportation of mili-

tary stores, and will become domesticated in the sterile regions and steppes of the far west. It may, in time, prove a valuable auxiliary to our internal commerce, and a very convenient, though comparatively slow means of communication between distant territories. The camel of Arabia is, to all intents and purposes, a domestic animal; fulfilling the joint functions of the horse, the ox and the sheep, and will no doubt enter largely into the domestic economy of our people. Camels' hair and the hair of the Angora goat—an animal which I yet hope to see introduced into the Alleghany and Rocky Mountains—are the raw material employed in many of the most valuable tissues of the East, and there is no reason to doubt that with the same raw material at our command, and with the aid of suitable machinery, our ingenious and enterprising countrymen, would in due time furnish similar, if not better, fabrics.

I must now apologise for briefly introducing a topic, not legitimately connected with agriculture, and not properly coming within the scope of your society. I would gladly avoid it, if its introduction were not in some degree necessary to complete the cycle of ideas which have suggested these reflections. I cannot close my remarks without refering to the Mineral wealth of our country.

America is as rich in minerals as in soil, and produces all the valuable and useful metals in the

greatest abundance. Iron is not confined to any particular locality. It is found in various parts of New-England and New-York; it extends throughout the whole state of Pennsylvania and the mountain regions of Maryland, Virginia and North Carolina; it exists in large quantities in the states of Missouri, Ohio, Kentucky, Tennessee and Illinois, and on Lake Superior; furnishing every where the levers of civilization to an industrious and energetic people.

The coal region of the United States includes Pennsylvania, parts of Maryland, Virginia, North Carolina, Georgia, Alabama, Tennessee, Kentucky, Missouri, Iowa, Illinois, Indiana and Ohio, and covers an area larger than the united kingdom of Great Britain and Ireland. Lead and zinc are found in almost every portion of the United States; but in inexhaustible quantities in Illinois, Missouri, Iowa and Wisconsin. Copper is found to some extent in various parts of the Union; but the great copper fields are on the borders of Lake Superior, and in New Mexico. Gold and silver are found in California, Oregon and New Mexico, and along the range of the Alleghany mountains in Virginia, North Carolina and Georgia.

One great peculiarity of the mining regions of America, and especially those of coal, iron and lead, consists in the remarkable fact that the mineral is found in large quantities beneath the

richest and most productive soil; promising at the same time, a rich harvest to both the miner and the husbandman. We not only produce the minerals necessary for the construction of tools, agricultural implements and machinery, in an advanced state of industrial development; but also the precious metals in such abundance, as will eventually enable us to regulate the standard of values, and to control the commerce of the world. It is maintained by some writers on the subject, that mining, if not a branch of agriculture, is at least a kindred pursuit. The agriculturist draws from the earth the organic power which sustains vegetable life—the miner delivers her of the treasure long accumulated in her lap. Mining, like the pursuit of agriculture, nerves the arm and hardens the body, and renders it capable of great physical exertion. A knowledge of mineralogy, geology and chemistry, is indispensable to the successful pursuit of both branches of industry, and will enable the farmer to look for new sources of wealth beneath the soil he cultivates; while it will induce the miner occasionally to turn his attention very profitably to the external surface of the vault that covers his mining operations. The division of labor has, no doubt, its advantages as regards the mere cheapness of production; but it is less conducive to the development of the mind, and is rarely applicable to a sparsely settled country.

In thus cusorily reviewing some of the chief articles of Agricultural and Mineral production, which form the basis of our foreign exchanges, and regulate, in a great measure, also the domestic exchanges of the different States of our own confederacy, the question may arise, how far the establishment of proper institutions, or the improvement and better administration of those already in existence, may aid in the dissemination of knowledge among the great body of our industrious and independent cultivators of the soil. The subject is an important one, and appears thus far, to have excited but little public attention.

It would seem too, as if our diplomatic and consular systems were organized simply in regard to the great interests of commerce and manufactures; but could they not be made equally subservient to the mother interest of agriculture and its co-ordinate branches? While our Consuls report on the commerce and manufactures of foreign countries, would it not be well to require them to report also on the different agricultural productions of those countries, and the improvements which from time to time may be introduced in their culture? Might they not be made to furnish detailed accounts of the different modes of cultivation, the manner of preserving crops, the agricultural implements in use, and the various kinds of manures resorted to as means

of preserving or restoring soils? Could they not be induced to report on all the varieties of fruit, shade, and ornamental trees, and forward specimens of seeds, plants, roots, and bulbs, for gratuitous distribution, accompanied by proper directions for their use? An occasional paper on the domestic animals of different countries, and the mode of breeding them and improving the breed would be particularly acceptable, should the official business of the consul admit of such useful and interesting digressions.

These reports would not be expected to be made quarterly, as are those on commerce and manufactures. An annual paper would comprehend all that is desirable, and would certainly be no great tax on the consul's time and patience. In many instances all the materials for his report would be readily furnished him by the official politeness of the government to which he is accredited, and in others he would find all the required information already collected in some printed form.

By such simple means, a vast amount of information from all parts of the globe, could be collected, which in your hands, and in the hands of other corresponding associations, would be a most powerful auxiliary in the dissemination of agricultural knowledge. And I would, in connection with this subject, respectfully suggest the propriety of establishing a great National Agri-

CULTURAL SOCIETY, which, in immediate communication with the Agricultural Societies in the different States and Territories of the Union, and with the Patent Office, or some other appropriate governmental Bureau, might easily possess itself of all the necessary information, to present in its annual report, an elaborate and comprehensive view of the agricultural condition of our whole country. That Society would also be the proper medium for receiving the specimens of seeds, plants, bulbs, &c., forwarded from foreign countries by our consuls, together with the collections which under existing regulations, our navy is in the habit of making, and of distributing them among the different States and Territories.

The NATIONAL AGRICULTURAL SOCIETY would also be the proper channel of communication, and of effecting agricultural exchanges, between the several local societies of the United States, and the various agricultural and learned associations in foreign countries. It would, in fact, be the great centre of agricultural information, which would diffuse knowledge in a thousand different directions, over the whole length and breadth of our land, and to which every farmer could confidently apply for advice and instruction on any subject connected with his profession.

And here I may pause to inquire whether the Smithsonian Institute, at the seat of the National Government might not, *ex officio*, become a

colaborer and efficient assistant of the National Agricultural Society, in all its literary and scientific branches? Might not the Institute aid the Society in its periodical publications, and, in conjunction with it, diffuse the greatest amount of "useful knowledge among men?" Surely, the philanthropic intention of the worthy founder of that institution, could not be carried out in a more suitable and effective manner, than by making it thus subserve the great interests of agriculture in all its branches. Whatever its present usefulness may be, it can perform no higher duty than contribute in the most efficient manner, to the perfection of that species of human industry, which is the parent and promoter of all others, and on which the safety and permanence of our institutions rest as on their broadest foundations.

Mr. President and Gentlemen, in bringing this discourse to a conclusion, I am not insensible to the magnitude and importance of my theme. I have approached it with diffidence, before an auditory, critically observant of its great practical and philosophical truths, and have obeyed your flattering request with a consciousness that the noblest spirit of Man demands a broader and higher reach of thought than I have found time and opportunity to bring to its elucidation. I have sought at least to show, not only the dignity and value of your calling, in its influence over the destiny and elevation of our country, but to

enforce the great truth, that a common interest links together throughout all the diversities of soil, of climate, and of production, the noble fabric of American industry.

In taking leave of such a theme, let me say that you may well rejoice in your pursuit. You may well rejoice in its triumphs—the peaceful triumphs of Labor, of Art, and of Science. You may recall with pride that illustrious race of cultivators, who, from CINCINNATUS to WASHINGTON, graced and ennobled Agriculture, and which in turn graced and ennobled them. You may congratulate yourselves upon the condition and attitude of your Society. If in the rank of American States, New-York holds a lofty position, the labors of its State Society will be the more widely productive of benign results, not only in promoting and advancing its own husbandry, but its bright example will be felt in all quarters of the Republic. Let me then urge you to renewed and unremitted effort—to continued zeal and emulation in the discharge of duties to your State and Country, which bring with them the blessings of God and the gratitude of Men. As the dews from Heaven refresh and fertilize the earth, and gladden the heart of the husbandman, so will your labor, steadily pursued and wisely directed, and liberally disseminating the seeds of intelligent observation and experience, bring forth a rich and abundant harvest.